ABSTRACT

As a result of investigating the optimum conditions of methods for immobilizing proteins that interact with sugar chains onto a substrate, it was revealed that coating the surface of a slide glass with GTMS enables immobilization at a higher S/N ratio than conventionally possible. Moreover, by using a substrate to which a rubber with a number of holes was affixed to form a number of reaction vessels, and further by spotting lectins onto the substrate and washing with PBST, the weak interactions between sugar chains and lectins were successfully detected with improved sensitivity. In addition, by introducing an evanescent excitation-type scanner, it became possible to detect the interactions between lectins and sugar chains without washing away the probe solution.